

A. CLAIM AMENDMENTS. This listing replaces all prior versions of the claims.

11. (Original) A method of processing a bitstream representing a compressed image frame sequence, said method comprising:

receiving, for each of multiple frames, information identifying a subset of image slices for the frame, the subsets being independently encoded from other image slices not in the subsets, such that any motion vectors necessarily point to an identified subset of another frame;

decoding the subsets;

selectively editing decoded data;

encoding new image slices from decoded data and edited data; and

inserting the new image slices into the bitstream, and generating a representative output signal.

12. (Original) A method according to claim 11, wherein generating an output signal includes generating an output signal compliant with MPEG-2 standards.

13. (Original) A method according to claim 11, wherein the information identifies image slices associated with a fixed spatial region across multiple image frames.

14. (Original) A method according to claim 13, wherein the editing includes inserting a logo within the fixed spatial region, and wherein generating an output signal includes generating one of a television broadcast signal, video game data, an Internet video signal and a digital video disk (DVD) signal.

15. (Original) A method according to claim 11, wherein the information identifies image slices associated with an object that varies in frame position across the multiple frames and wherein receiving information includes distinguishing the subset from a variable number of other image

slices not associated with the subset.

16. (Original) A method according to claim 15, wherein the information includes for each frame a map identifying total number of slices for the frame, and the relative position of image slices in the subset with respect to the total number of slices.

17. (Original) A method according to claim 11, wherein editing includes performing one of color correction, mixing images, removing an object from an image, scaling an object, cropping an object and adjusting perspective of an object within the subset.

18. (Original) A method according to claim 11, wherein:

decoding the subsets includes decompressing the subsets;

editing includes editing decoded and decompressed data to perform one of color correction, mixing images, removing an object from an image, scaling an object, cropping an object and adjusting perspective of an object within the subset; and

encoding decoded data and edited data includes compressing and coding decompressed data and edited data.

19. (Original) A method according to claim 11, further comprising adjusting a bitstream parameter to reflect newly inserted slice data.

20. (Original) A method according to claim 11, further comprising inserting new information identifying slices of the subset into a frame header of the output signal.

21. (Currently Amended) An apparatus, comprising instructions stored on machine readable media, the instructions when executed causing a machine to:

examine an input bitstream to identify discrete slices of image data that are associated with a selected object or [special] spatial region appearing in a video frame;

decode the identified slices for at least several frames;

edit decoded data;

encode new image slices from decoded data and edited data; and

insert the new image slices to take the place of identified slices, and generate therefrom an output bitstream including both new image slices and other, unedited image slices from the input bitstream;

wherein the discrete images slices are characterized in that the selected object or spatial region are motion-search-limited, such that any motion vectors representing the selected object or spatial region are constrained to point to reference data for an associated subset of discrete image slices found within an reference frame and such that editing may be performed upon data decoded to the spatial domain without need to decode image slices not in the subset.

22. (Original) An apparatus according to claim 21, further comprising instructions that when executed cause a machine to edit decoded data by performing one of logo insertion, color correction, perspective change, cropping, image mixing and image substitution.

23. (Original) An apparatus according to claim 21, further comprising instructions that when executed cause a machine to:

decompress decoded subsets;

edit decompressed data to perform one of color correction, mixing images, removing an object from an image, scaling an object, cropping an object and adjusting perspective of an object within the subset; and

compress and encode decoded data and edited data to generate the new image slices.

24. (Original) An apparatus method according to claim 21, wherein the output signal is generated to include one of a television broadcast signal, an Internet video signal and a digital video disk (DVD) signal.

25. (Currently Amended) An apparatus that utilizes a bistream decoder and a bitstream encoder and that edits selective portions of an input bitstream to generate therefrom an output bitstream, comprising:

a video editor;

an image slice control system, adapted to

identify a subset of image slices for each of multiple frames,

cause the bitstream decoder to decode the subset for at least one frame for editing by the video editor,

cause encoding of new image slices from decoded data and edited data, and

insert the new image slices to take the place of the subset and thereby form the output bitstream from both un-edited slices and the new image slices;

wherein the discrete images slices are characterized in that the selected object or spatial region are motion-search-limited, such that any motion vectors representing the selected object or spatial region are constrained to point to reference data for an associated subset of discrete image slices found within an reference frame, and such that the video editor may edit spatial domain data without need to decode image slices not in the subset.

26. (Original) An apparatus according to claim 25, wherein the image slice control system adjusts video parameter data of an output signal to reflect newly inserted image slices.

27. (Original) An apparatus according to claim 25, wherein the image slice control system inserts slice identification information into a video frame header, the slice identification information identifying select image slices that correspond to one of an object and a spatial region appearing in a frame of an output signal.

28. (Original) An apparatus according to claim 27, wherein the slice identification information identifies slices associated with the subset, after editing.

29. (Original) An apparatus according to claim 25, wherein the video editor performs one of color correction, mixing images, removing an object from an image, scaling an object, cropping an object and adjusting perspective of an object within the subset.

30. (Original) An apparatus according to claim 25, further adapted to utilize a decompression engine and a compression engine, wherein:

the image slice control system is adapted to cause the decompression engine to decompress decoded subsets;

the video editor selectively edits decompressed data to perform one of color correction, mixing images, removing an object from an image, scaling an object, cropping an object and adjusting perspective of an object within the subset; and

the image slice control system is adapted to cause the compression engine to compress decompressed data and edited data, to generate the new image slices therefrom.